

Weather Events of 2013 across Southwest California

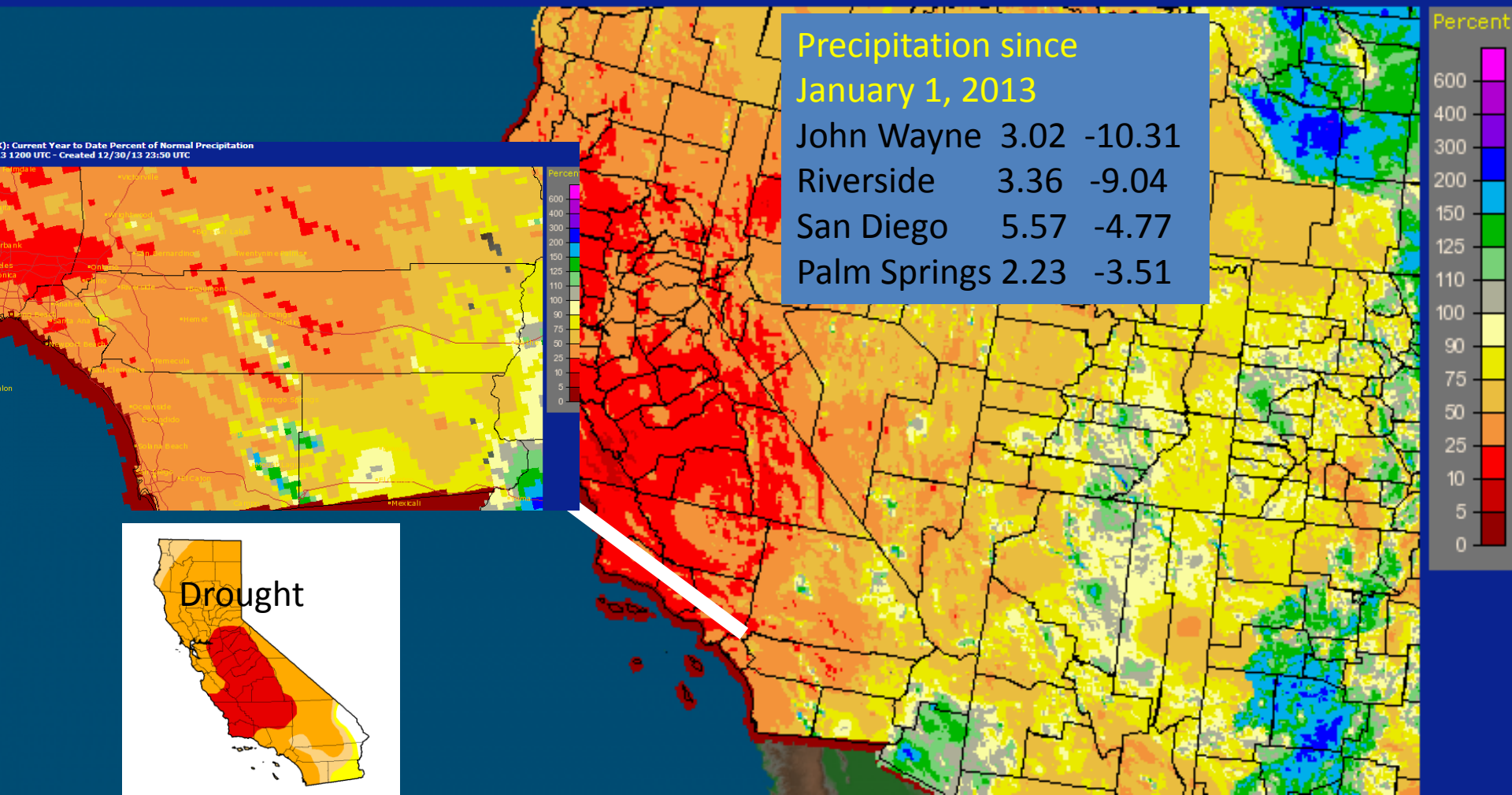
Lewis Surrey



Compiled by Alex Tardy
National Weather Service

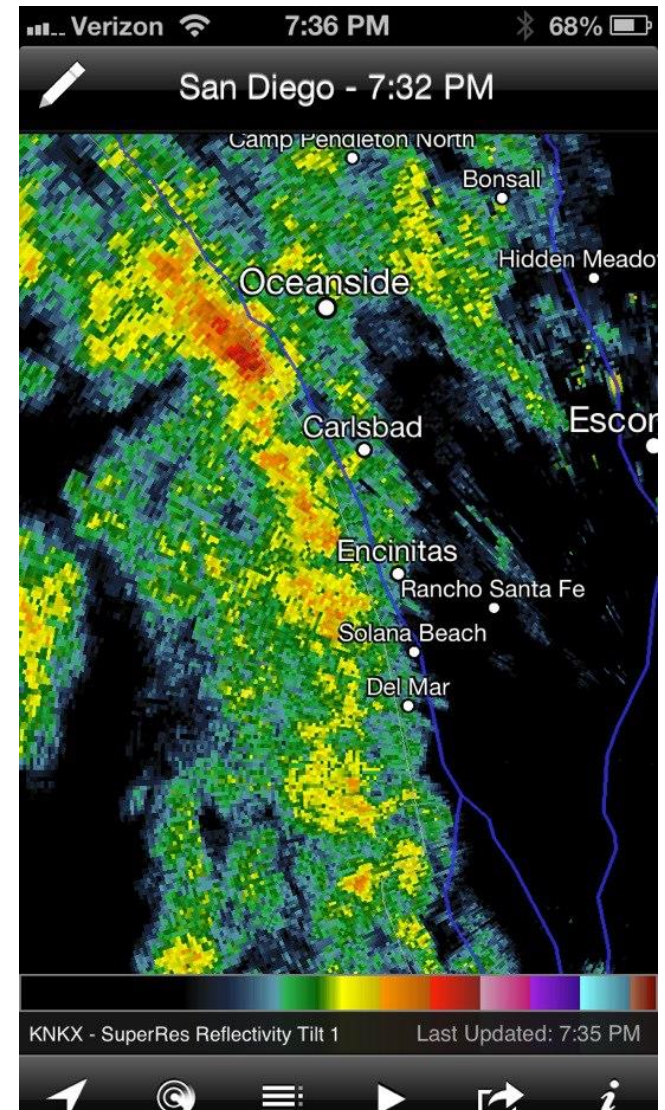
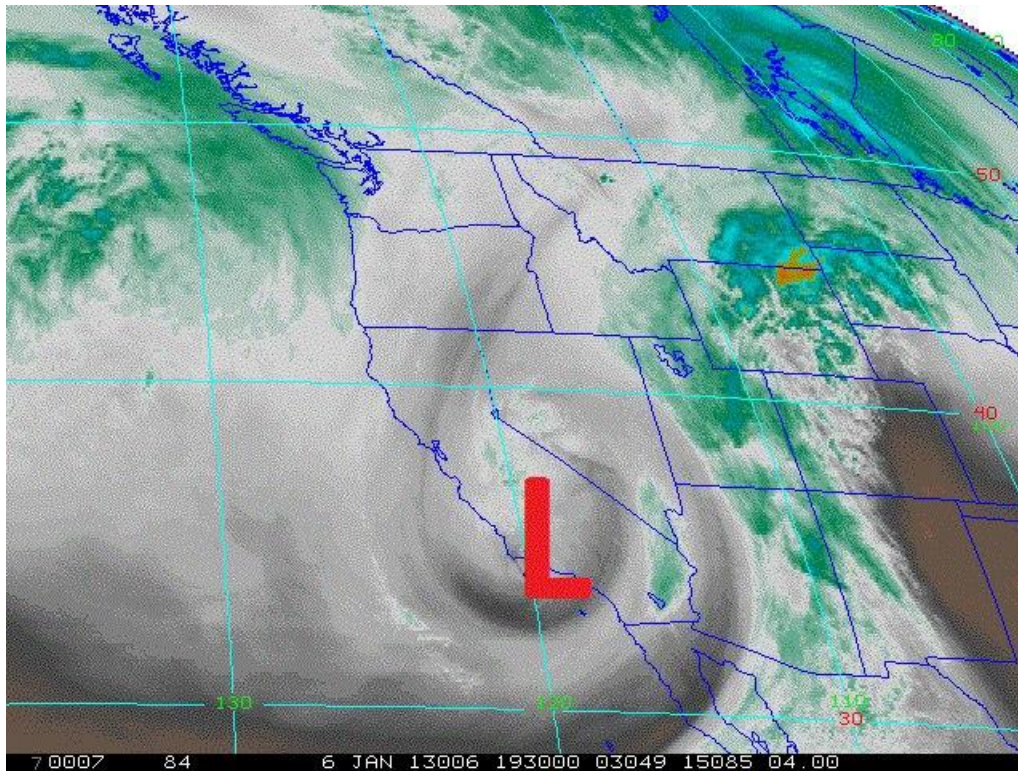
2013 precipitation percent of normal

California: Current Year to Date Percent of Normal Precipitation
Valid at 12/30/2013 1200 UTC - Created 12/30/13 23:46 UTC

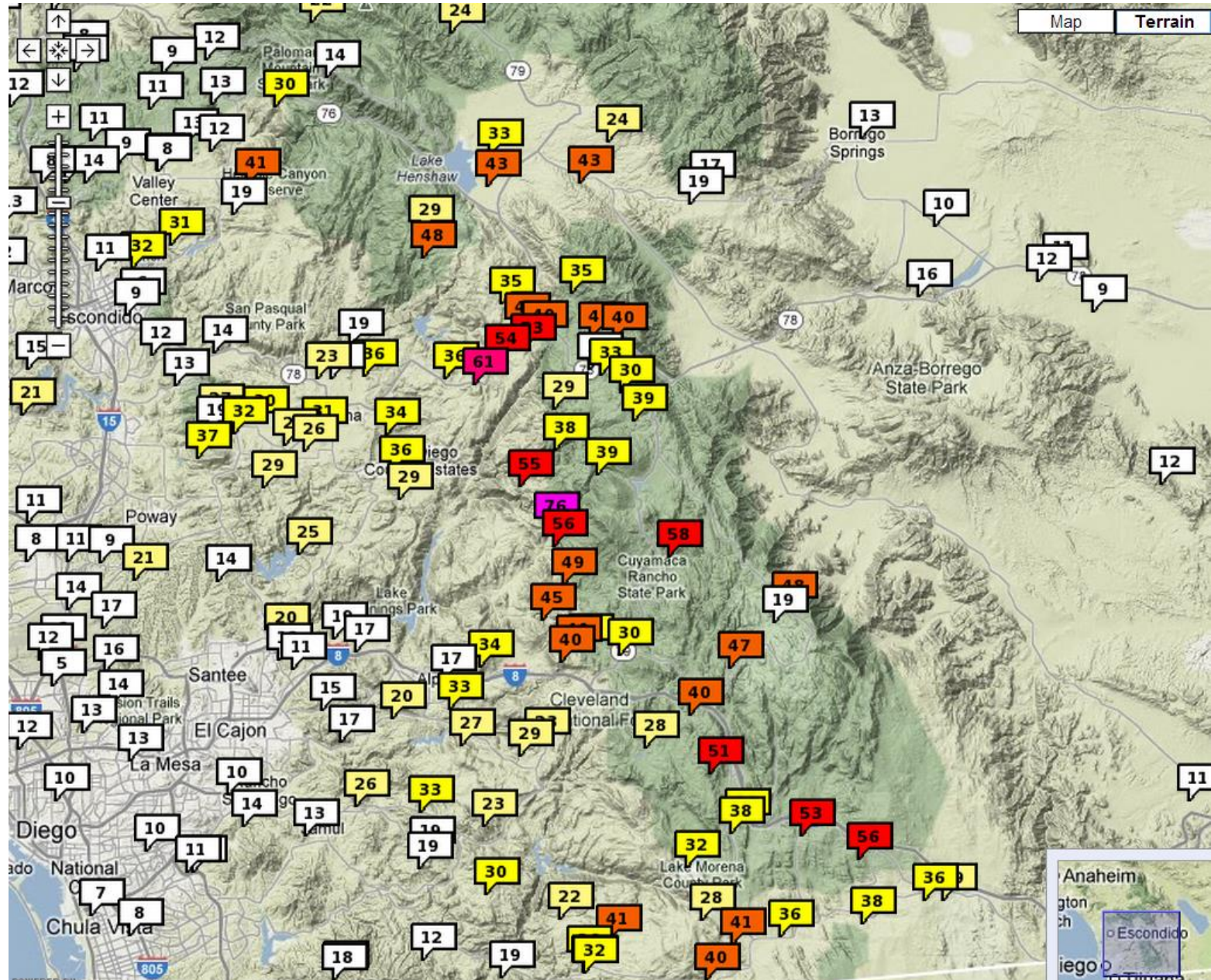


January 6 ,2013 cold closed upper low precipitation event

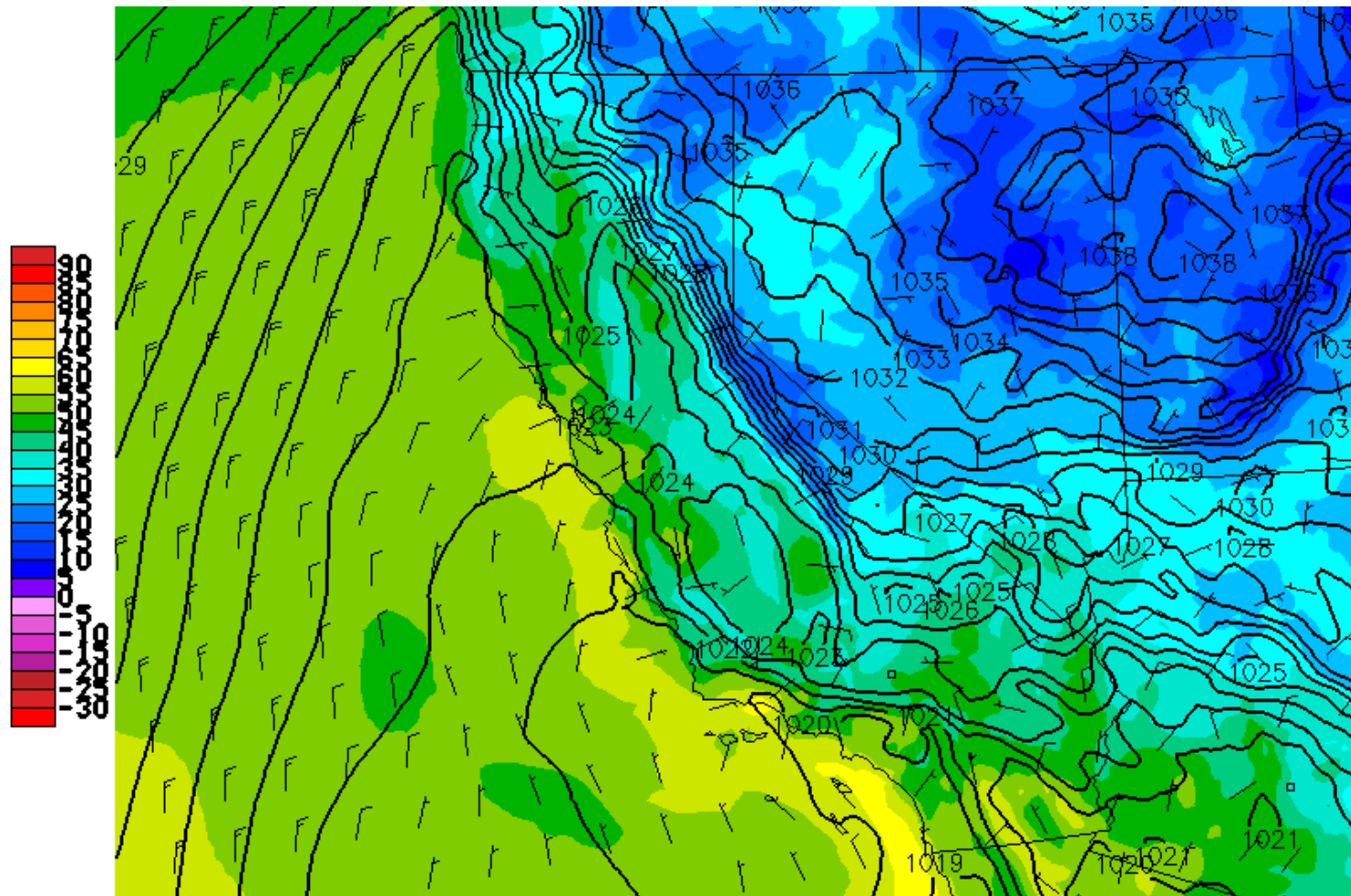
similar precipitation on the coast and mountains



Santa Ana peak winds January 16

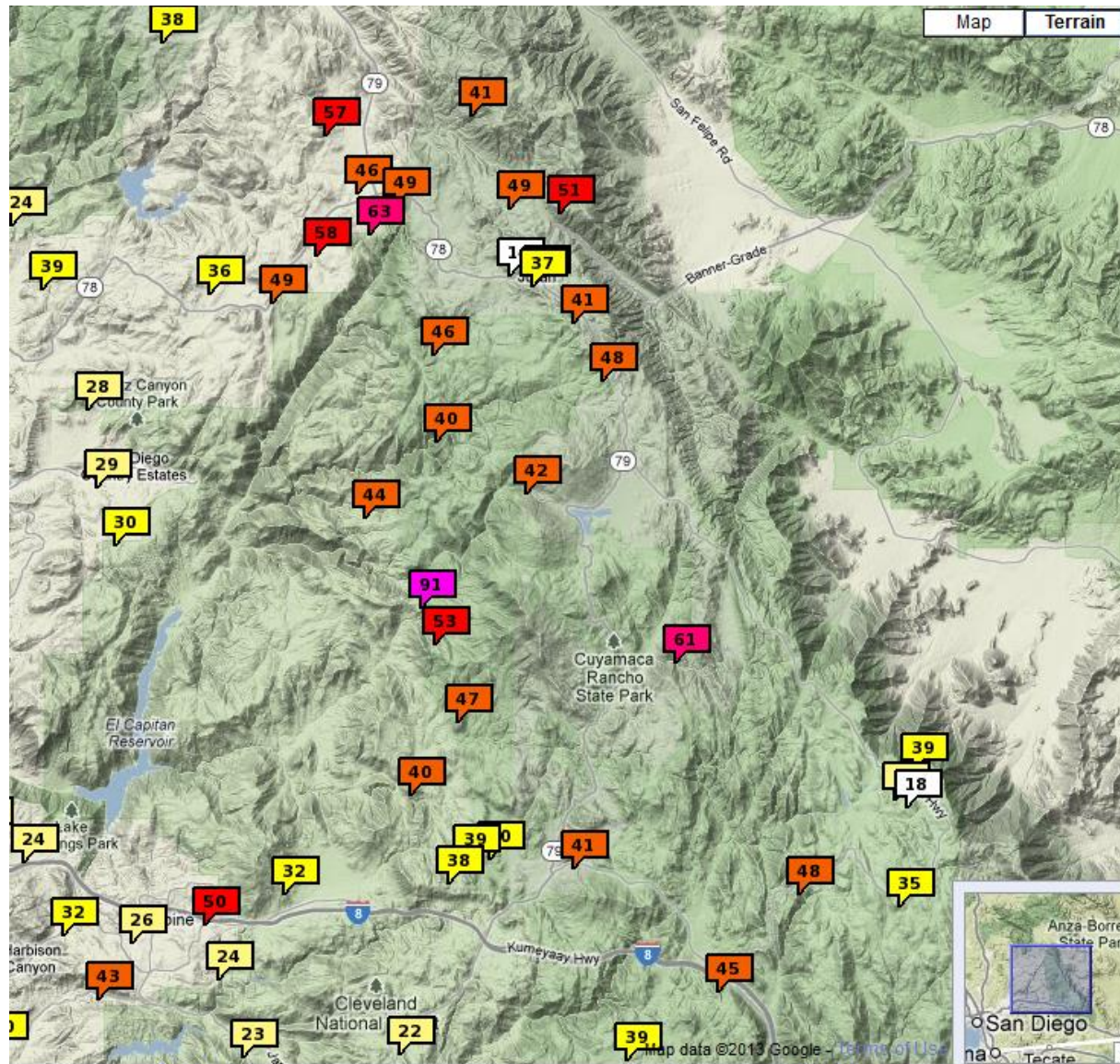


12 UTC 15 February NAM analysis
19 mb SLC to SAN (similar to January 16)



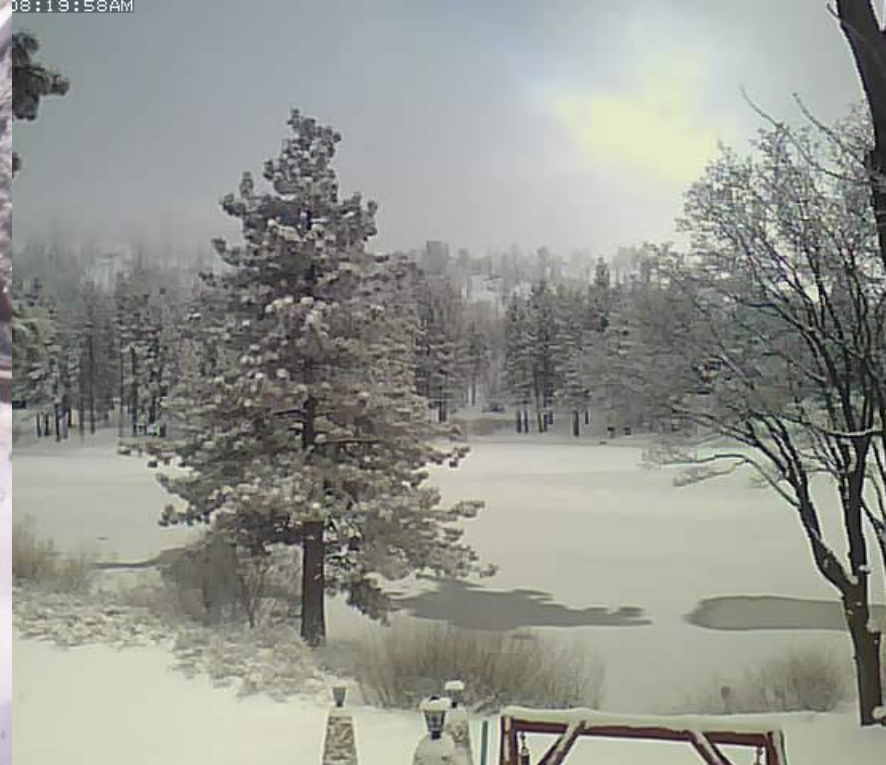
Surface Temperature(F), Pressure(mb) & 10m Winds(kt)
NAM218 Valid 130215/1200V000 UTC

91 mph in San Diego County!





John Ferdon



February 8, 2013
snow storm

Webcam



Anza Borrego SP



Press Enterprise



Big Bear

10 am Sunday February 10

Crowning
causes
height loss

15"

12"

3"

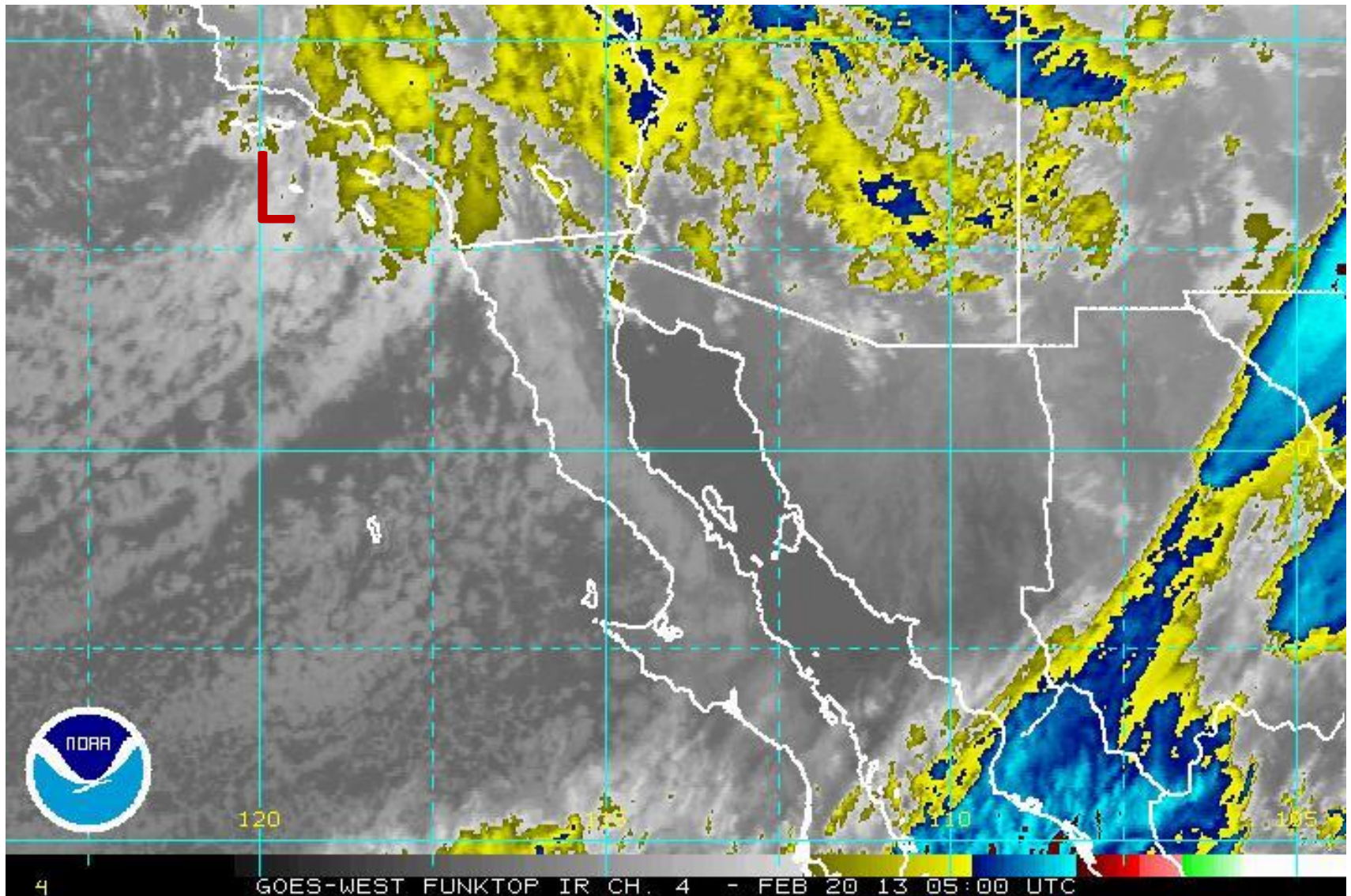
6"

Spotter reported 21 inches total snowfall early Saturday. Fluffy snow can settle several inches in just 24 hours! Wind, compaction and melting are primary causes. Its important to measure every 12 hour at minimum and every 6 if possible

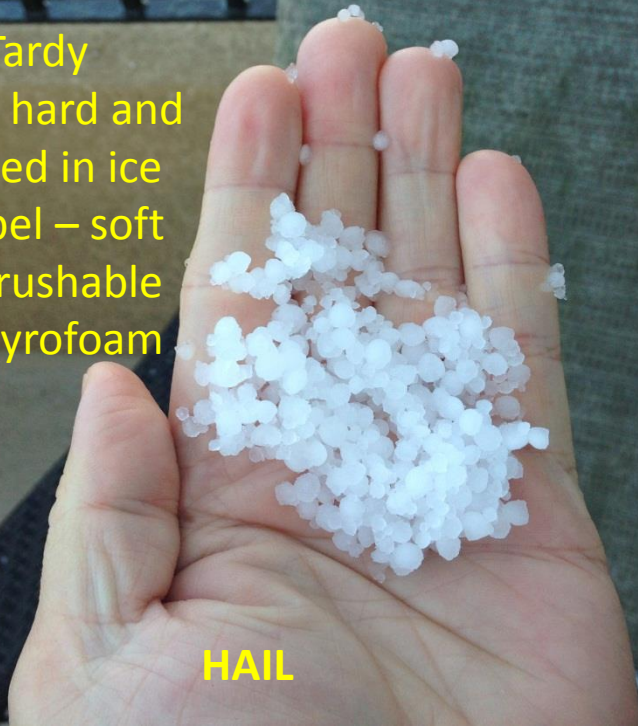
Took picture 10 am Sunday by spotter "5 settled or melted"

Sue Wright

Satellite view February 20, 2013 storm



Alex Tardy
Hail – hard and
encased in ice
Graupel – soft
and crushable
like styrofoam



HAIL



US Border Patrol



John Ferdon



Ed Sherman



Mountain High resort

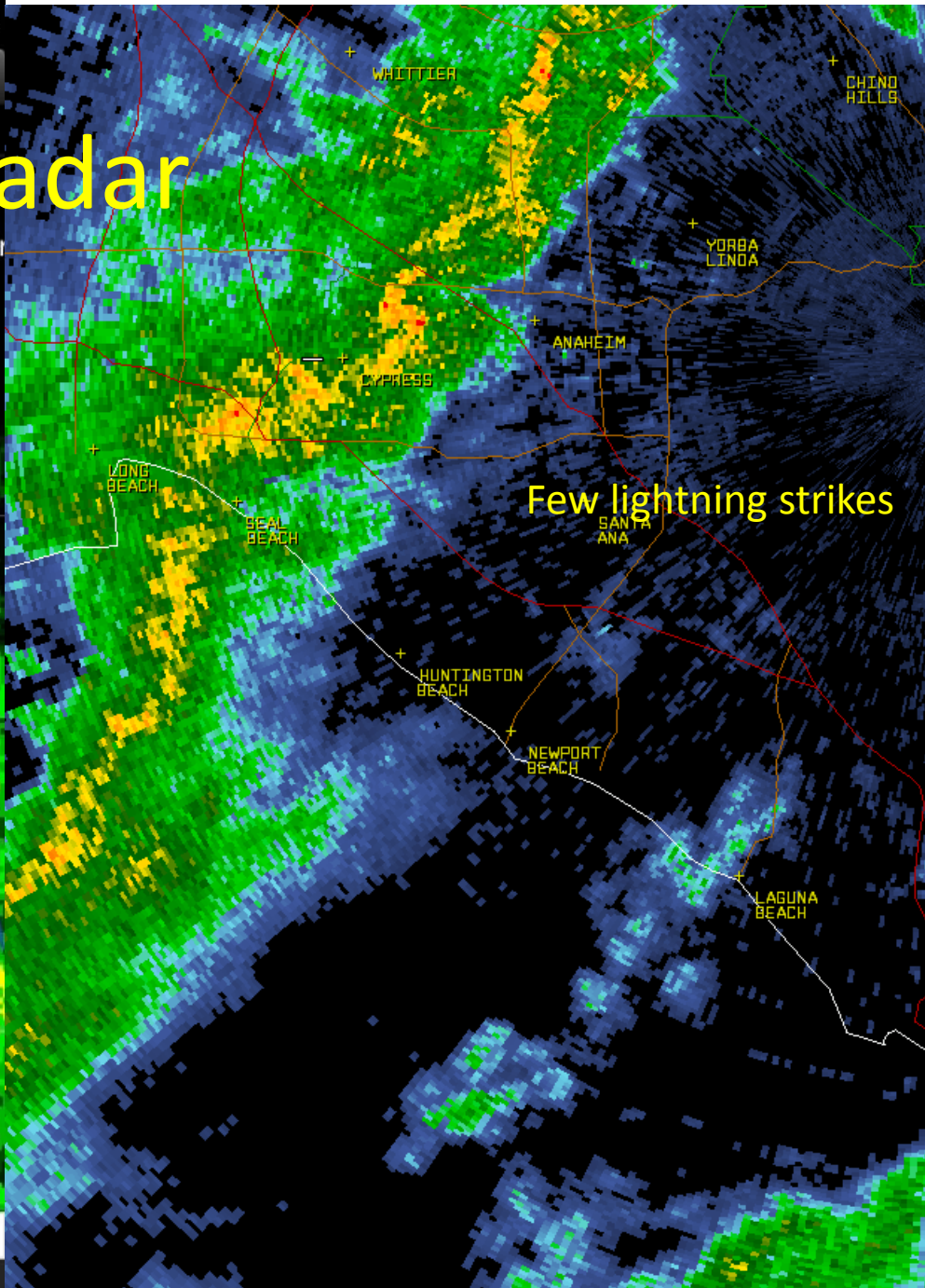
San Diego - 10:53 PM



KNKX - Composite Reflectivity

Last Updated: 10:58 PM

Radar



Few lightning strikes

The March 7-8 storm went directly across the San Diego and Riverside County line



Satellite view of main storm moving east and directly over San Diego County. Image 130 pm PST



Upper low is overhead!

Satellite view of main storm moving east of San Diego, wrapping some moisture around into the northern mts and deserts.



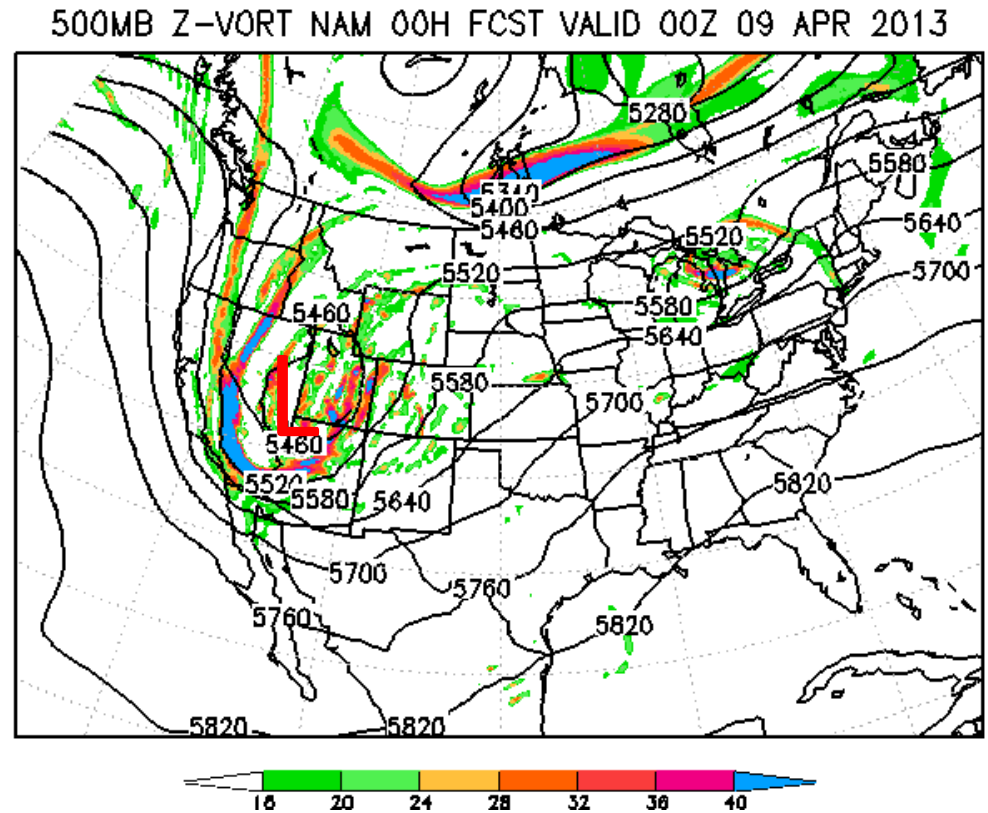
Upper low moving off to the east toward AZ

Image from 3:40 pm PST

[illegible]

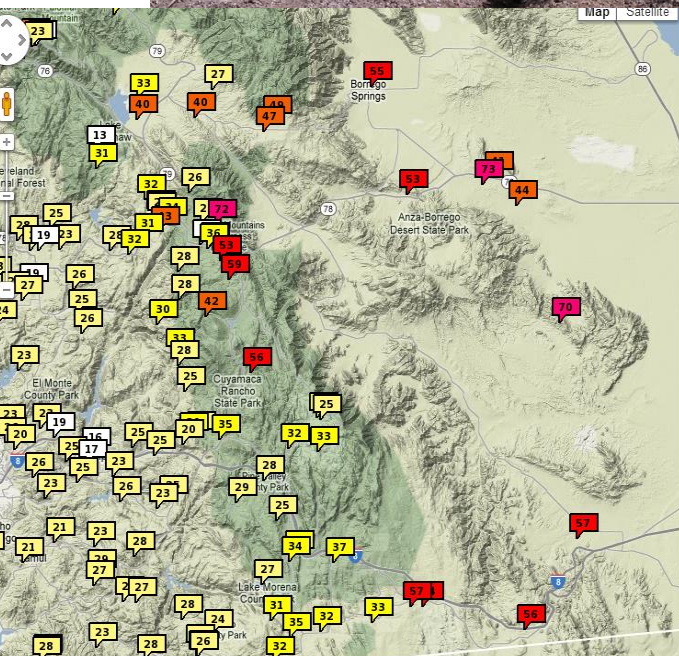
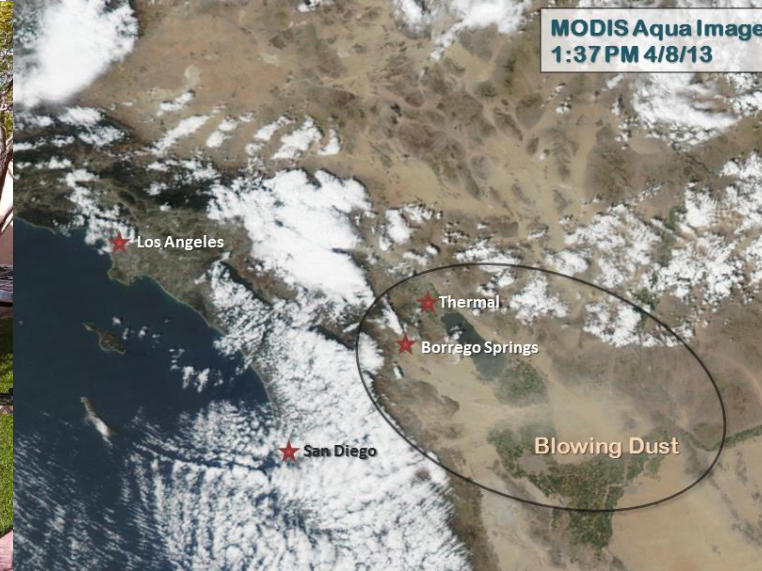
7 to 13
snow
above 5000
feet

April 8, 2013 wind storm

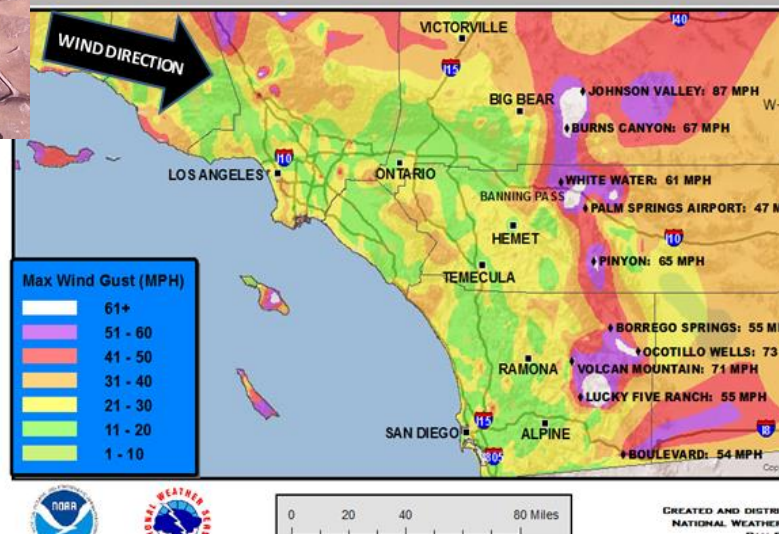


Weather Pattern

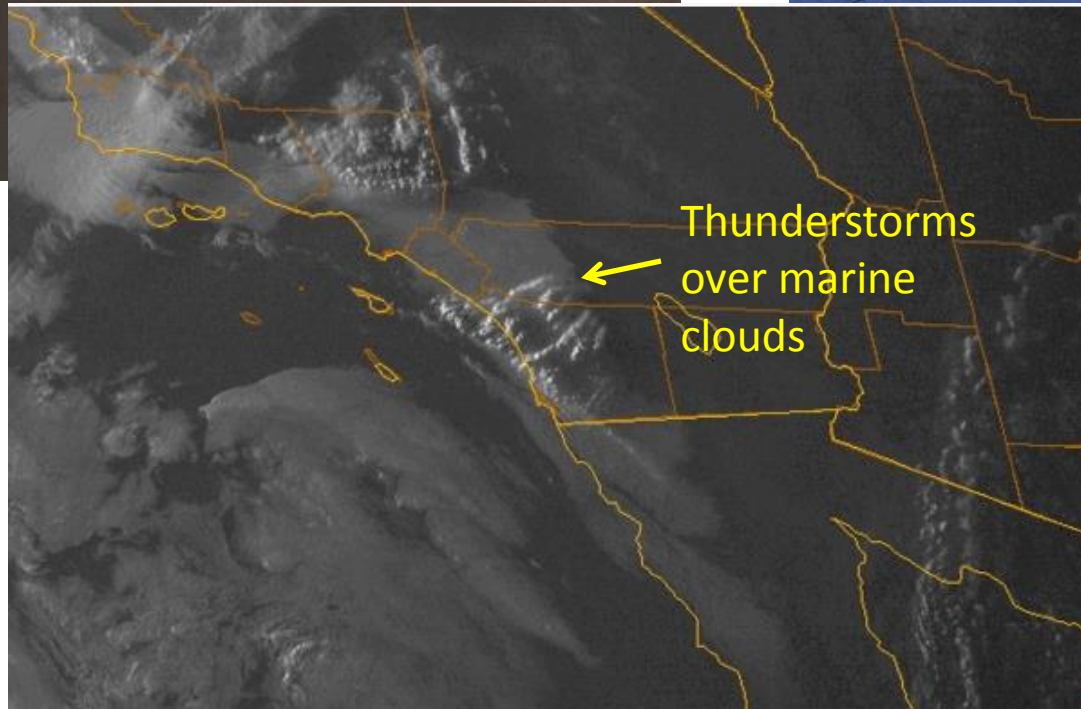
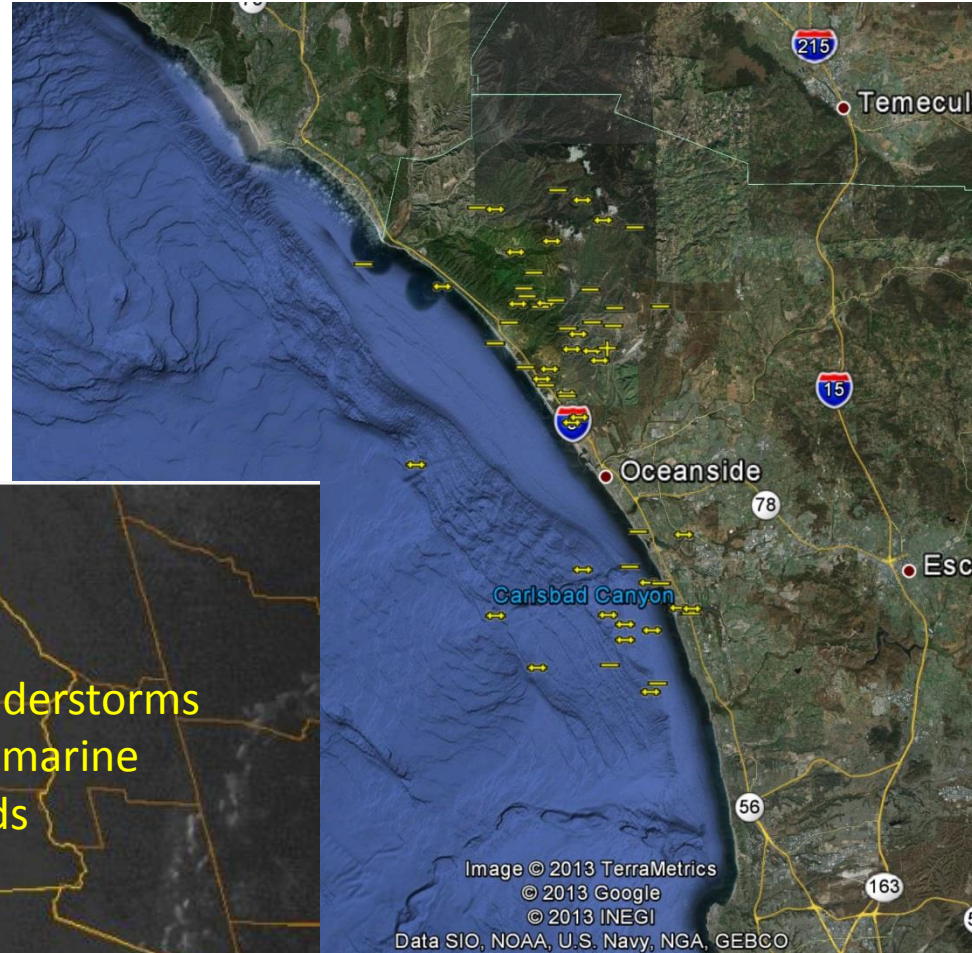
April 2013 desert severe wind storm



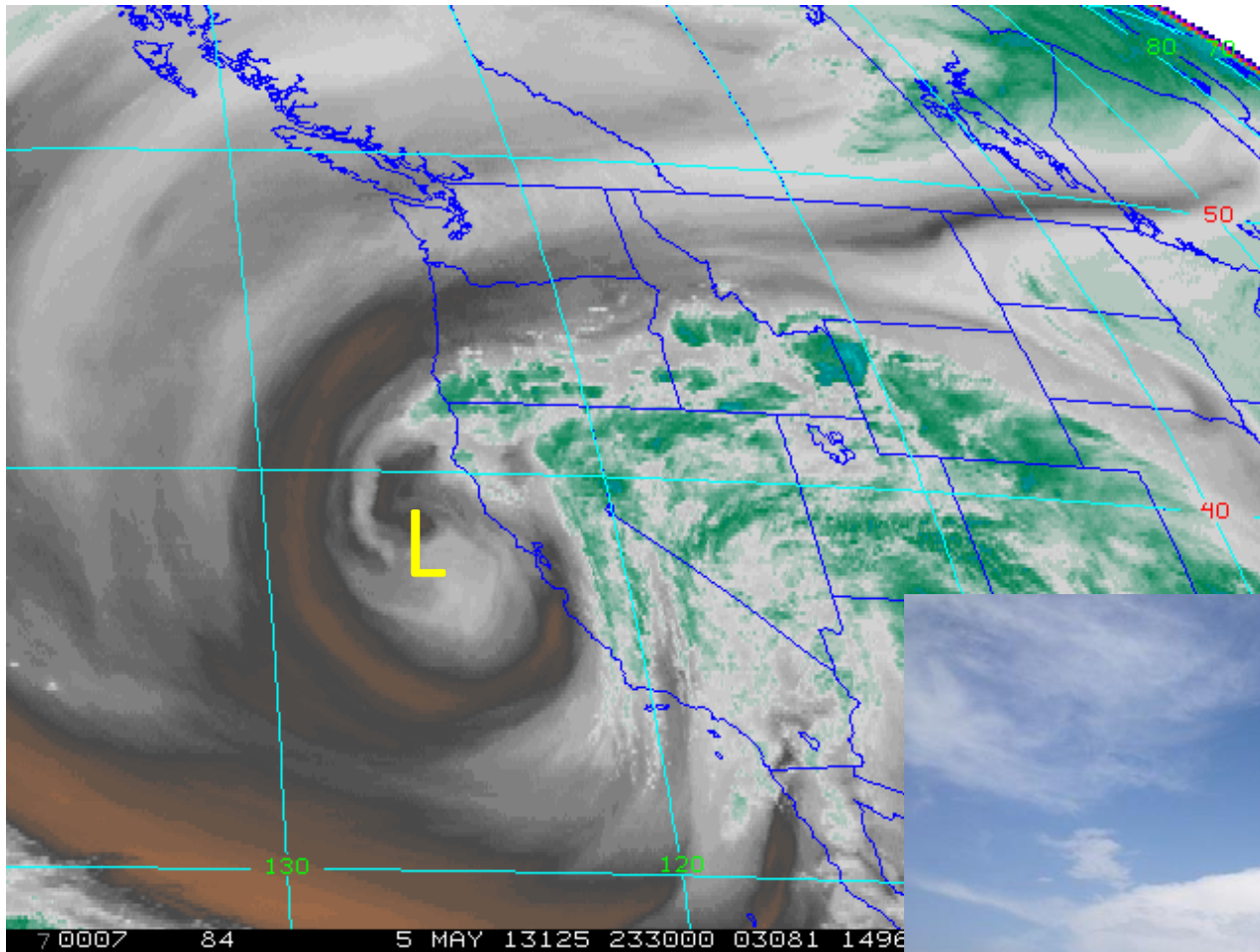
Monday's Maximum Wind Gusts
Date: 4/8/2013



April 24, 2013 elevated thunderstorms



Late Season May storm



Heat Wave June 28 to July 9

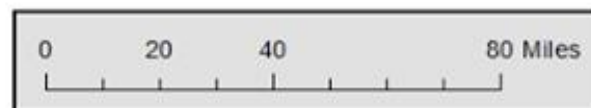
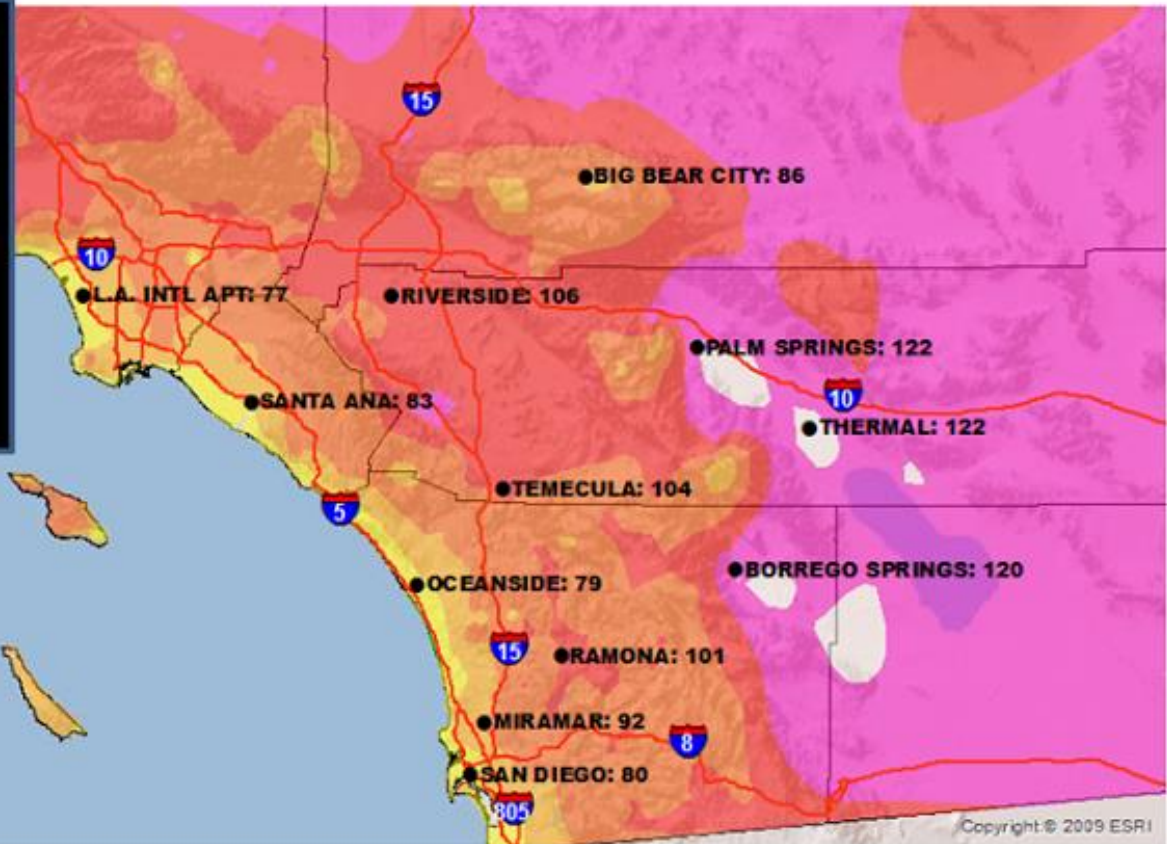
Saturday's Maximum Temperatures - 6/29/13

RECORDS

LOCATION	NEW RECORD	OLD RECORD	RECORD LENGTH
RIVERSIDE	105	104 IN 1996	1893
PALM SPRINGS	122	121 IN 1994	1893
THERMAL	122	118 IN 1994	1950
ELSINORE	111	110 IN 1972	1897
IDYLLWILD	98	96 IN 1972	1943
CAMPO	106	103 IN 1972	1948
INDIO	121	117 IN 1994	1894
BIG BEAR	90	89 IN 1994	1960

Max Temperature (°F)

	120 - 129
	110 - 119
	100 - 109
	90 - 99
	80 - 89
	70 - 79
	60 - 69
	47 - 59



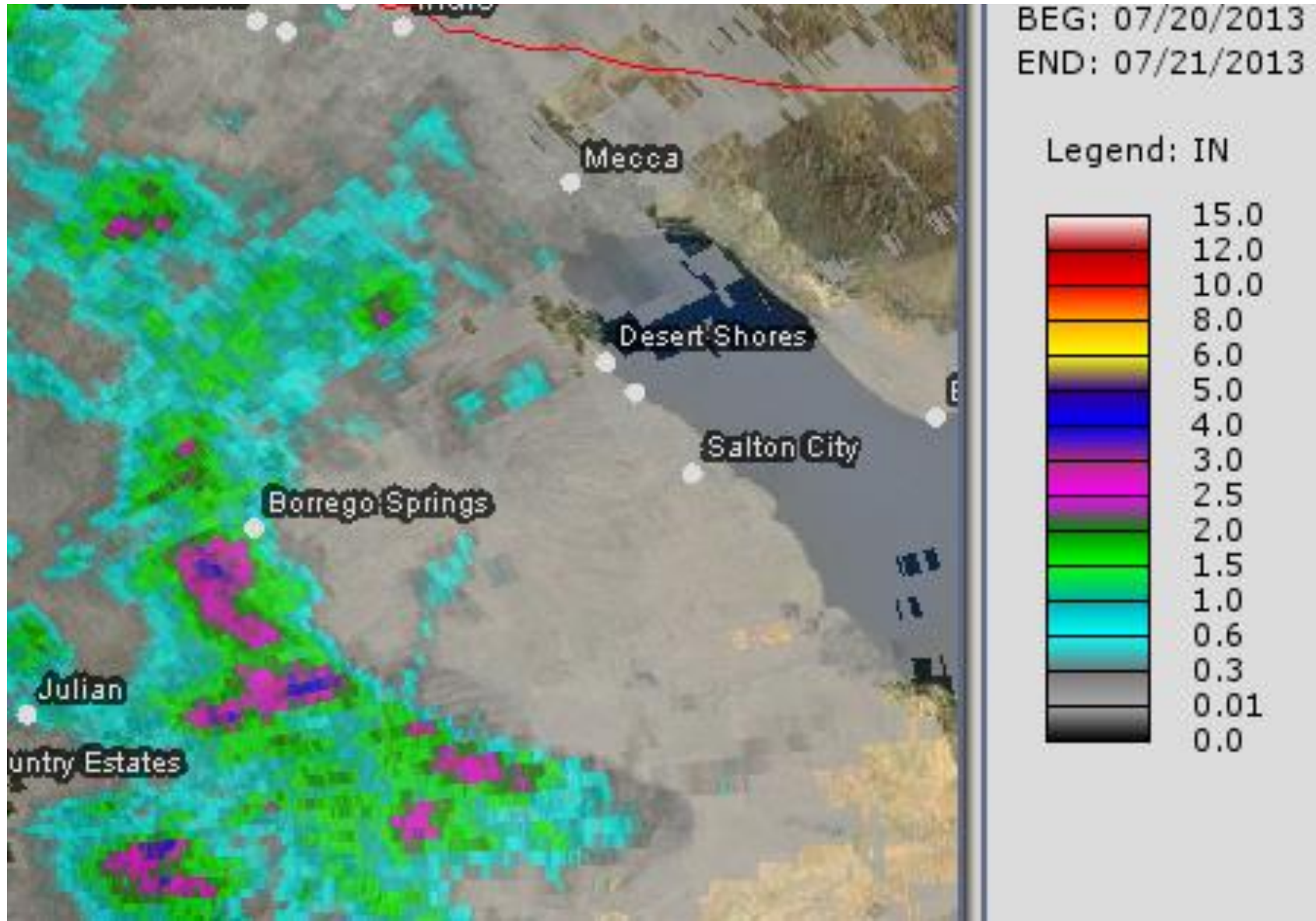
CREATED AND DISTRIBUTED BY
NATIONAL WEATHER SERVICE
SAN DIEGO, CA

Flash Floods in Borrego July 21, 2013

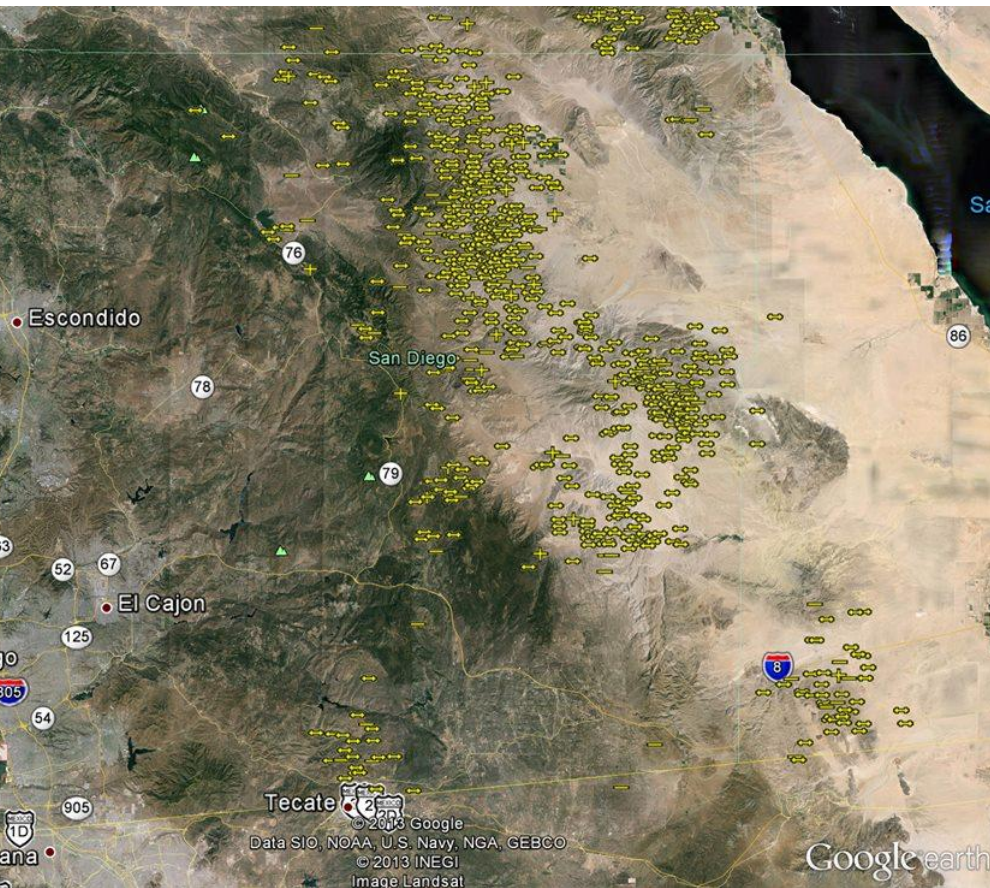
Fish Creek, Vallecito Wash and unknown



Digital Storm Total Precipitation (NKX) (dual pol) July 21



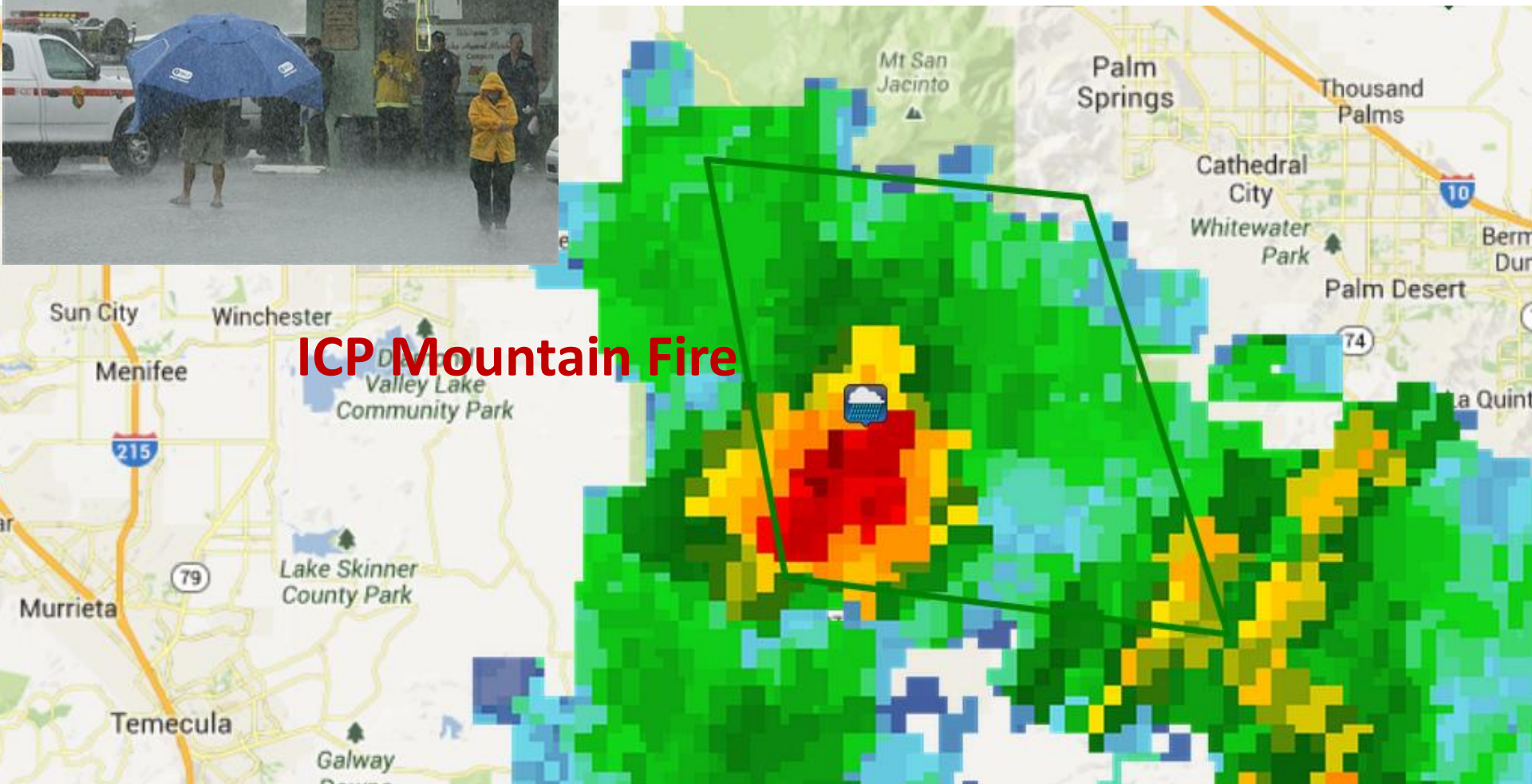
Lightning July 21 and 22, 2013



Mountain Fire burn scar debris flows

Heavy rain reported at ICP

18 inches debris flow mountain fire on Apple Canyon Road at 215 pm



July 22, 2013 Big Bear City

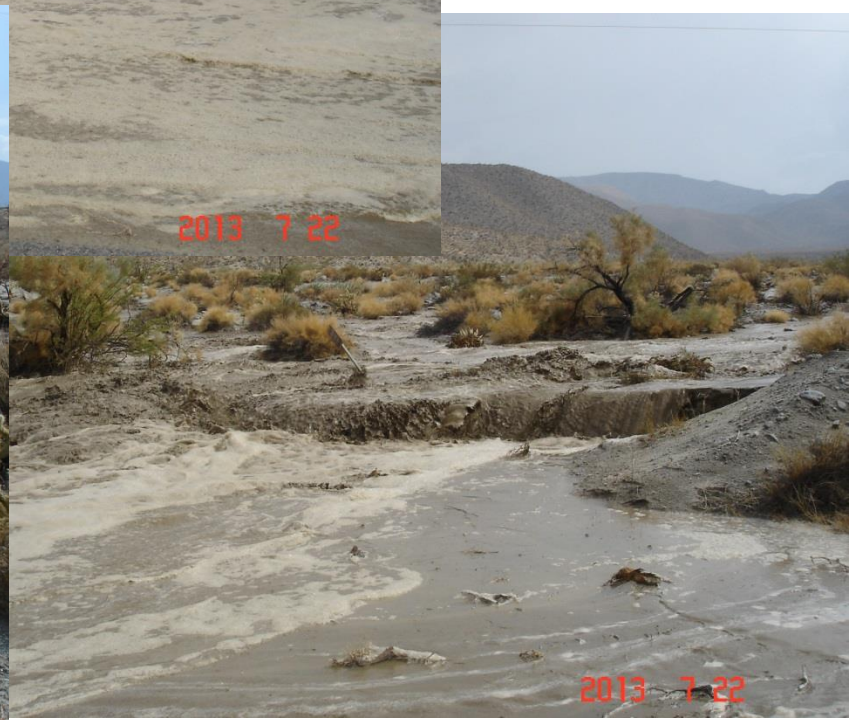


1 ½ hour after storm
by Jo Tunnell



July 22, 2013 Borrego Springs Flash Floods

Highway 78
3 to 4 pm
July 22 by NWS
survey



July and August 2013 Wildfires

Incident Meteorologist support



August 18-19



Danny
Vallanueva



Apple Valley



Weather spotters

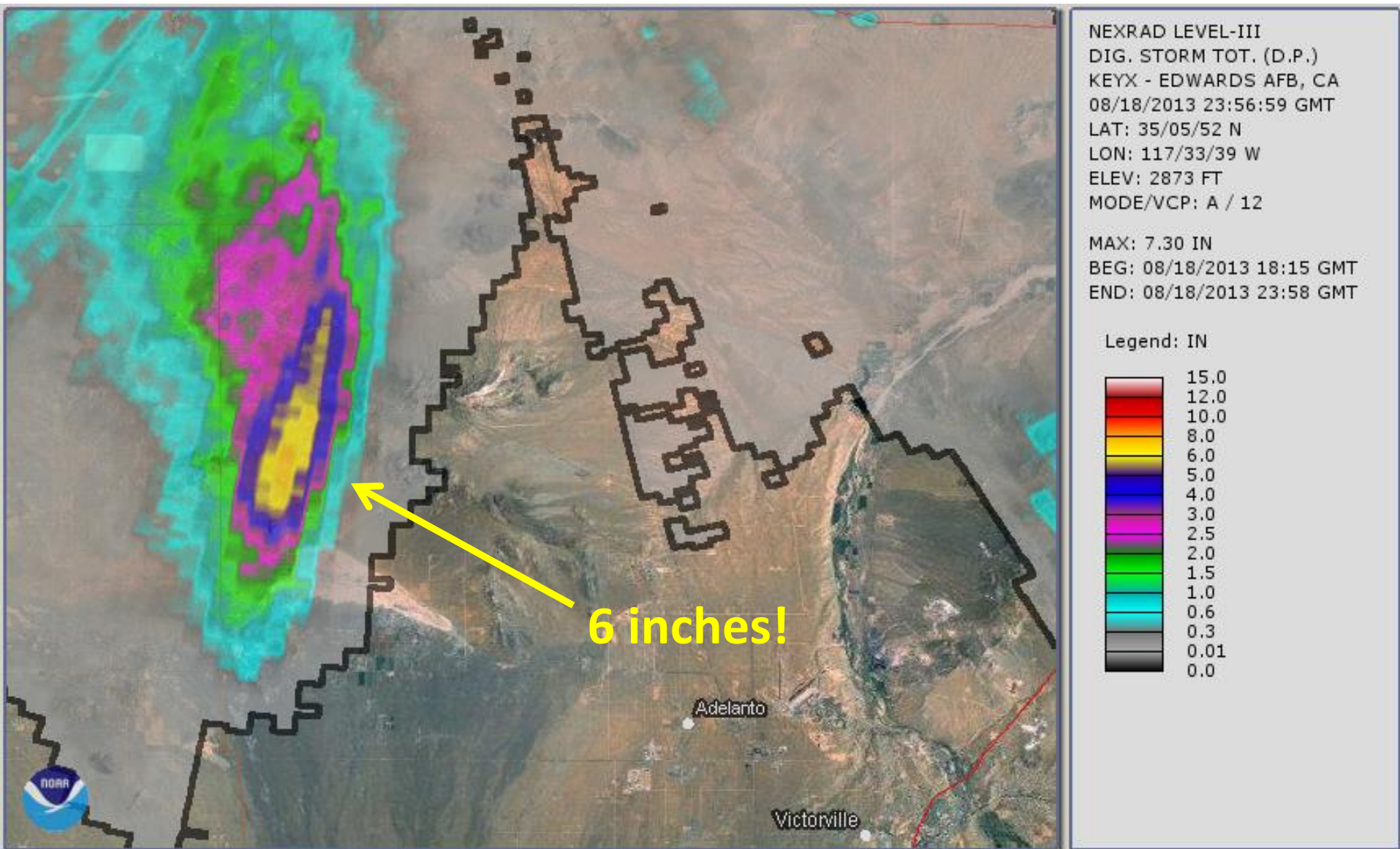


August 18
Landspout
Forwarded by Phill
Dupree

Todd Sudmeier

Digital precipitation storm total (dual-pol)

August 18, 2013



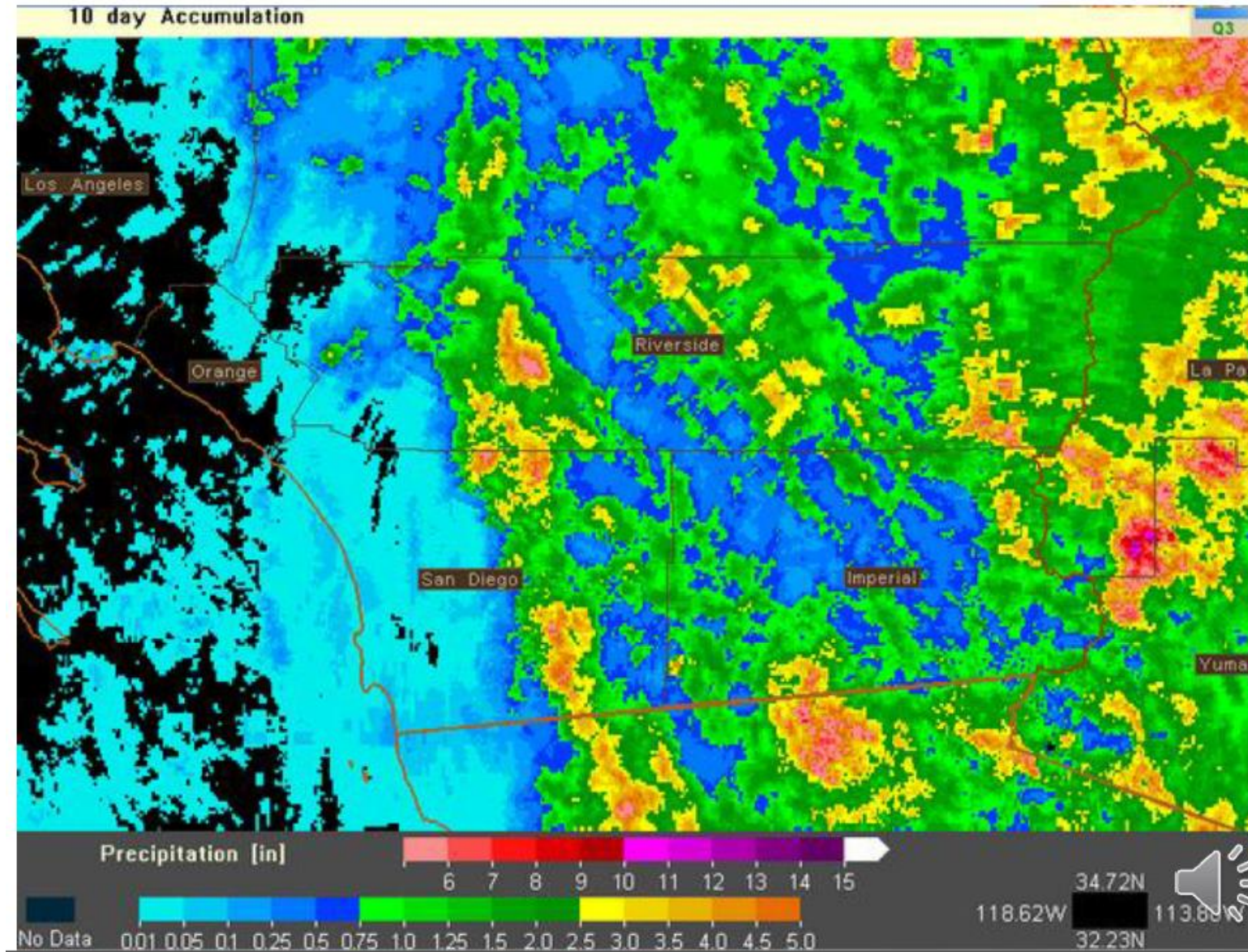
El Mirage fills west of Victorville



NWS survey
Photos by Alex Tardy



10 day rainfall through September 7



August 25 Borrego and Agua Caliente Major Flooding



August 29 Riverside City





September 3 and 4, 2013

Palm Springs and Idyllwild Zen Center



KESQ TV



Zen Center

Forest Falls

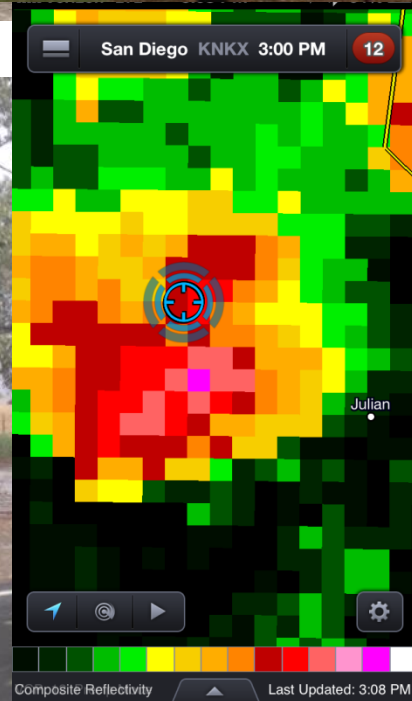
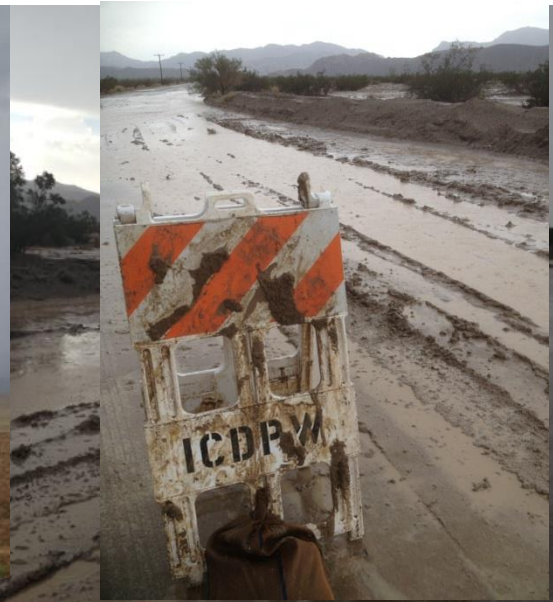


San Bernardino County
Public Works

September 6 Pine Valley Flooding and Wind Damage

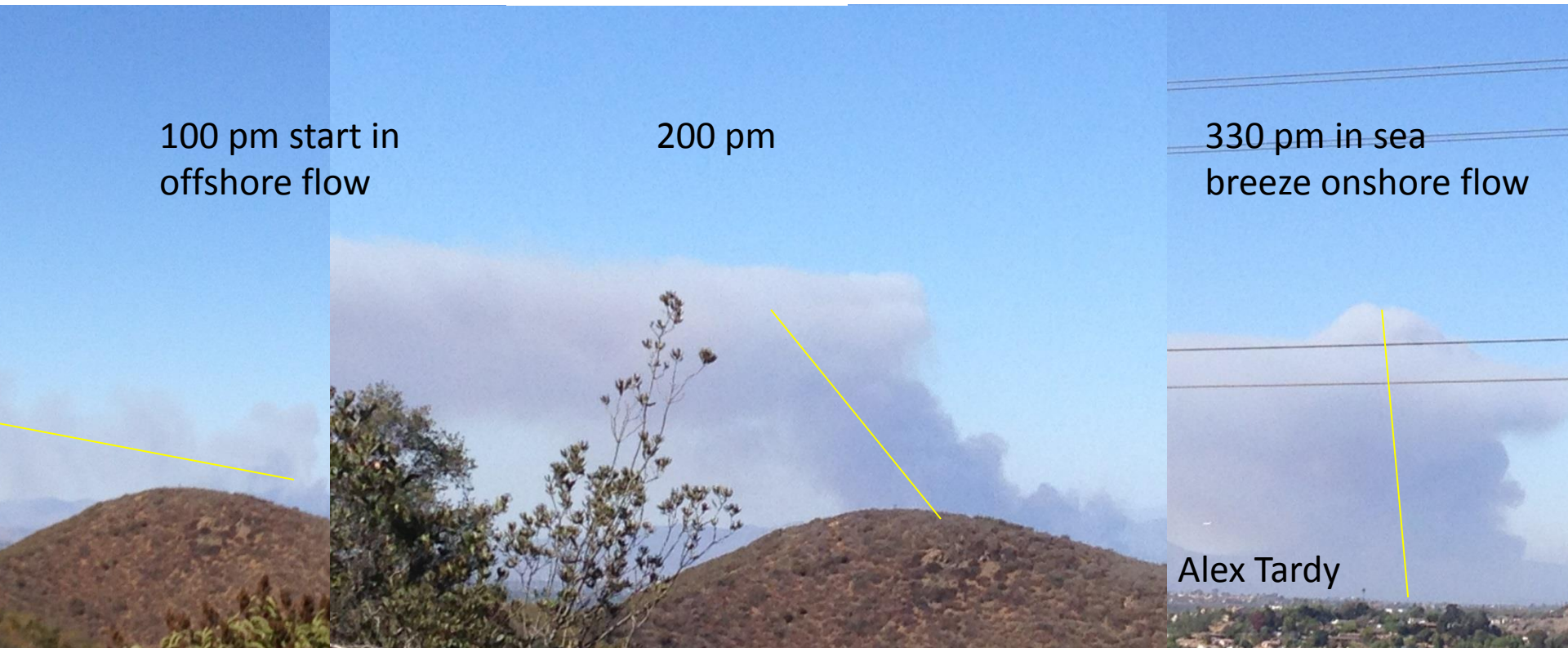


Highway 78 September 7 flooding



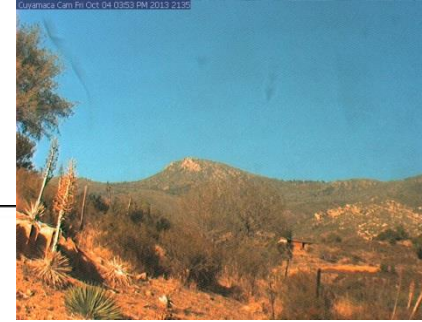
October 5, 2013

Camp Pendleton Fire

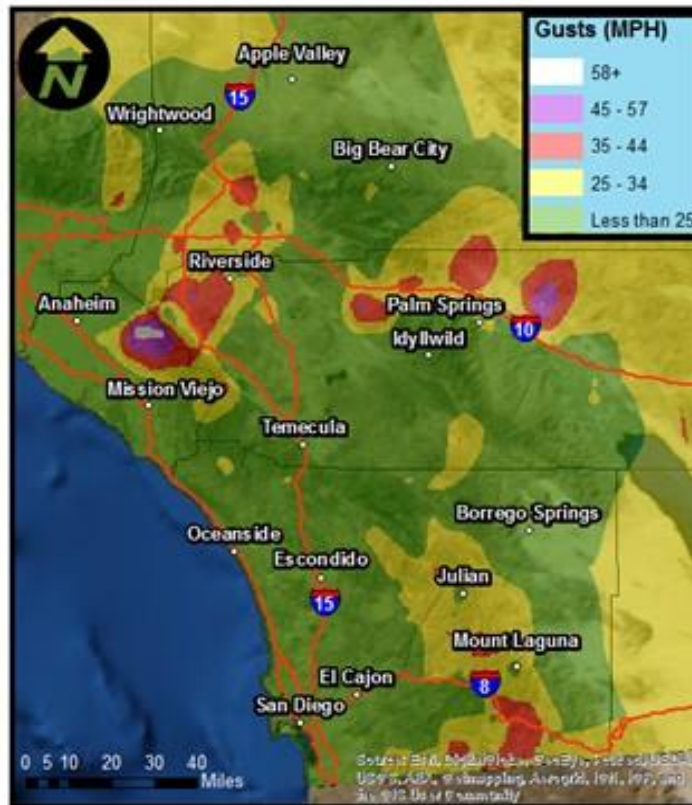


October 4-5, 2013

Santa Ana Wind



18 – Hour Maximum Wind Gusts – 10/4/2013



HIGHEST GUSTS

STATION	ZONE	MPH
1. FREMONT CANYON	Orange County Cst	66
2. PLEASANTS PEAK	Santa Ana Mts	61
3. SKY VALLEY	Coachella Vly	60
4. CRESTWOOD	SD County Mts	45
5. WHITEWATER	Coachella Vly	45
6. LA POSTA	SD County Mts	44
7. CAMPO	SD County Mts	44
8. SIERRA PEAK	Santa Ana Mts	43
9. BUCKMAN SPRINGS	SD County Mts	42
10. SKY VALLEY (1 W)	Coachella Vly	42
11. POPPET FLAT	RIV County Mts	41
12. SHOCKEY TRAIL (CAMPO)	SD County Mts	40
13. LUCKY FIVE RANCH	SD County Mts	40
14. SANTIAGO PEAK	Santa Ana Mts	40
15. CAMPO	SD County Mts	39



The graphic above displays interpolated values reported from over 600 weather stations in Southwest California. However, this should only be considered an estimation.



Issued Friday, Oct 4, 2013 at 3:23 pm PDT

National Weather Service - San Diego, CA

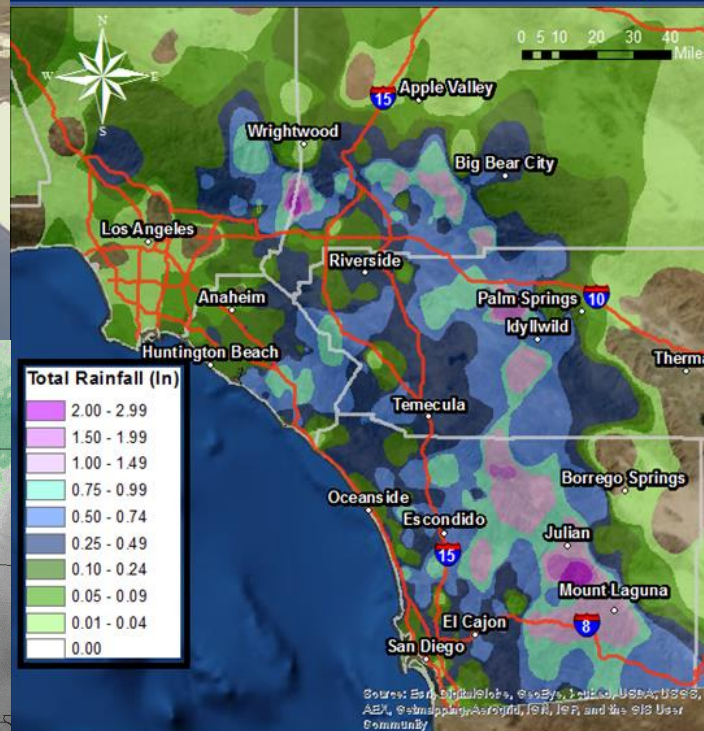


Green Valley Meadow Cam

Early Season Snow October 9



24-Hour Rainfall Totals Ending at 10:00 AM 10/10/2013



TOP 10 RAINFALL AMOUNTS

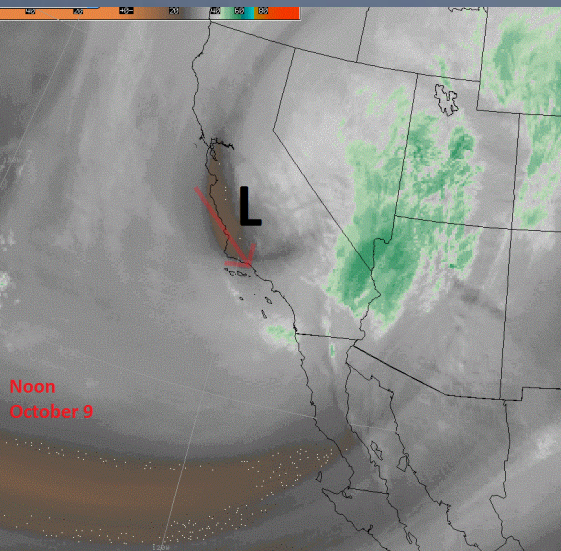
STATION - (EL)	AMOUNT
1. LAKE CUYAMACA - 4560 FT	2.58
2. SAN ANTONIO HEIGHTS - 2335 FT	2.16
3. POPPET FLAT - 3830 FT	1.77
4. CUCAMONGA CANYON - 1766 FT	1.77
5. BIRCH HILL - 5645 FT	1.66
6. VISTA GRANDE RAWS - 4700 FT	1.62
7. PINE HILLS RAWS - 3600 FT	1.57
8. PALOMAR CRS (PALOMAR MOUNTAIN)	1.56
9. VISTA GRANDE - 4939 FT	1.46
10. CEDAR GLEN - 5317 FT	1.46

SNOW AMOUNTS

1. GREEN VALLEY LAKE	6"
2. RUNNING SPRINGS	5"
3. PINE COVE	5"
4. BALDWIN LAKE	3"
5. ONYX PEAK	3"
6. WRIGHTWOOD	1 TO 2"
7. BIG BEAR LAKE	1"
8. MOUNT LAGUNA	Trace to 1"

This is an interpolation of reported values, but should be considered an estimation only.

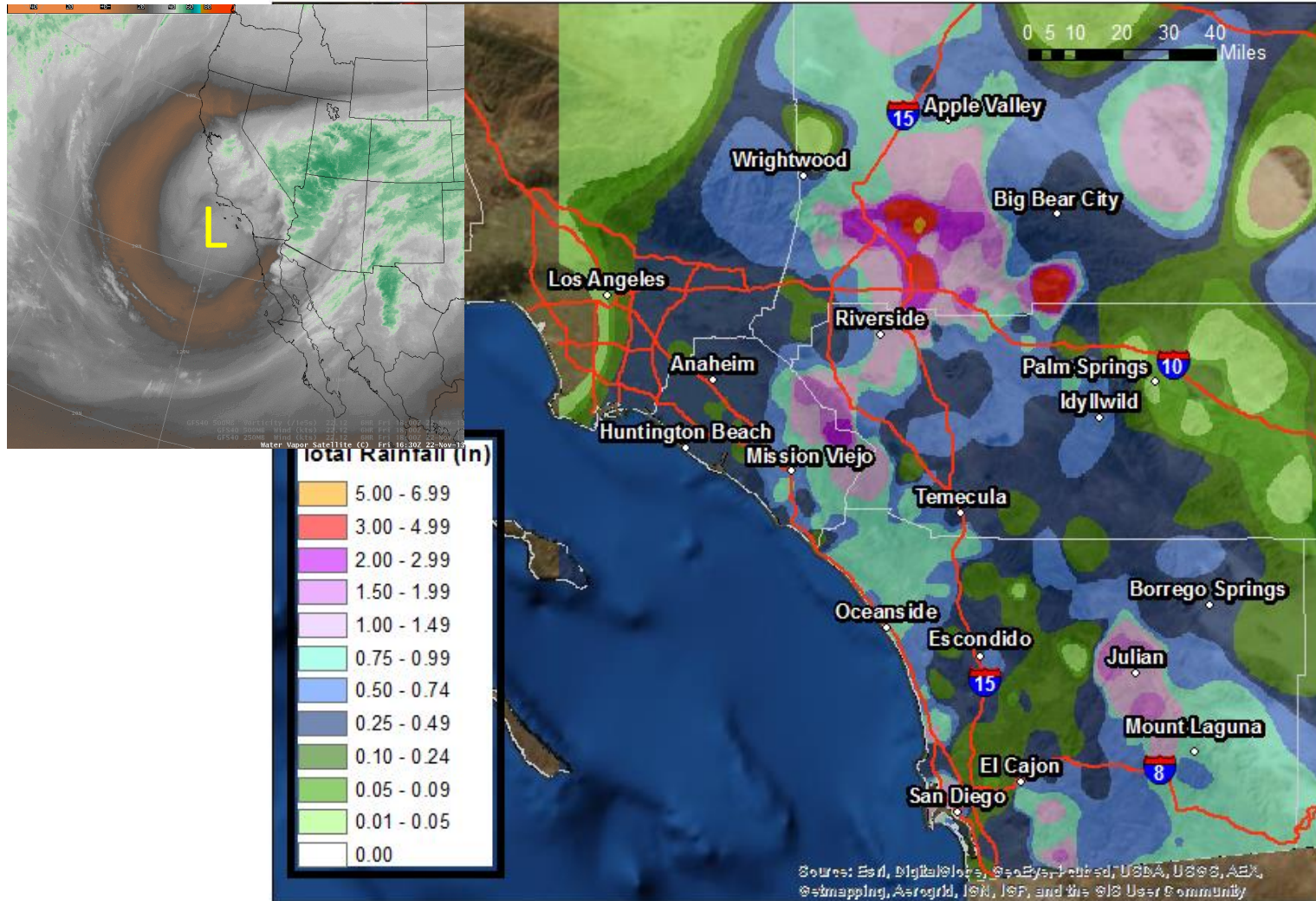
Created and distributed by NWS San Diego.



Dense Fog (UCSD cam) October 2013



48 hour total November 21-23



This is an interpolation of reported values, but should be considered an estimation only.

Created and distributed by NWS San Diego.



snowfall

Wrightwood



Big Bear and Snow Valley



2 to 5 in

Wrightwood
12 inch snowfall
By Bill Hillinger



Flash Flooding Inland Empire

"A huge wave about 2-1/2 to 3 feet high came down and pushed me to the side of the road," the 43-year-old motorist said of a 2:15 p.m. deluge Thursday, Nov. 21.

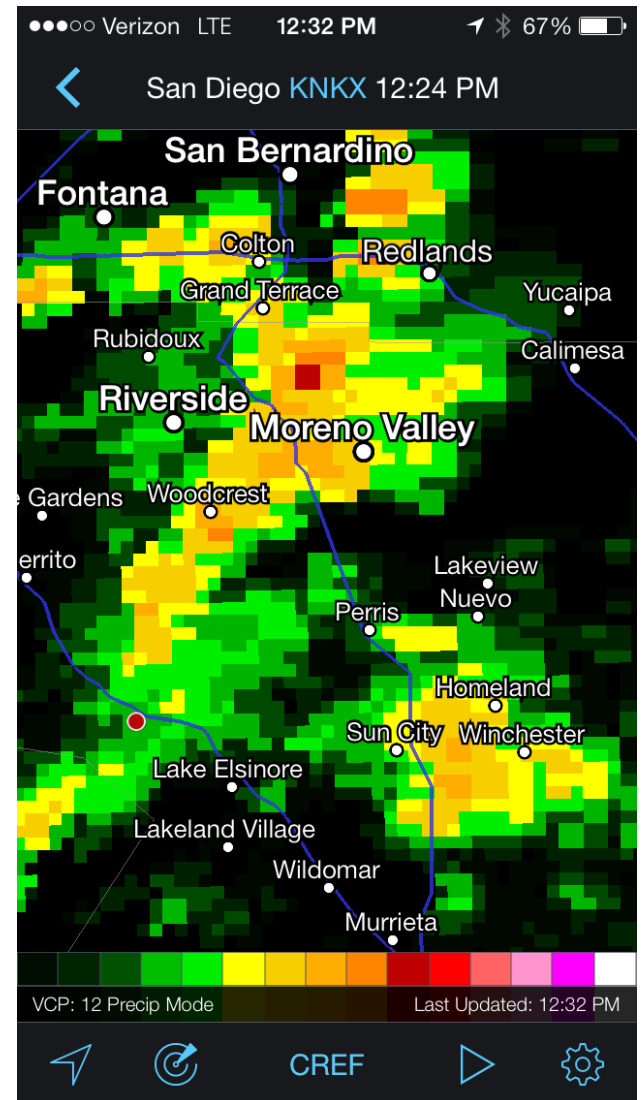
The mud stranded Menchaca and two other motorists and closed one of the busiest intersections in San Timoteo Canyon: San Timoteo and Live Oak Canyon Roads.

Two hours later, a bull dozer operator was still digging out the intersection. Menchaca still was spattered with mud up to his knees. And his truck showed no signs of going anywhere soon.



Press Enterprise

Heavy rains caused similar scenes elsewhere in San Timoteo Canyon between Moreno Valley and Redlands. And it was the same story in Reche Canyon between Riverside County and Colton, according to the California Highway Patrol.



Urban Flooding November 21

1 inch rainfall in 1 hour and pump failure

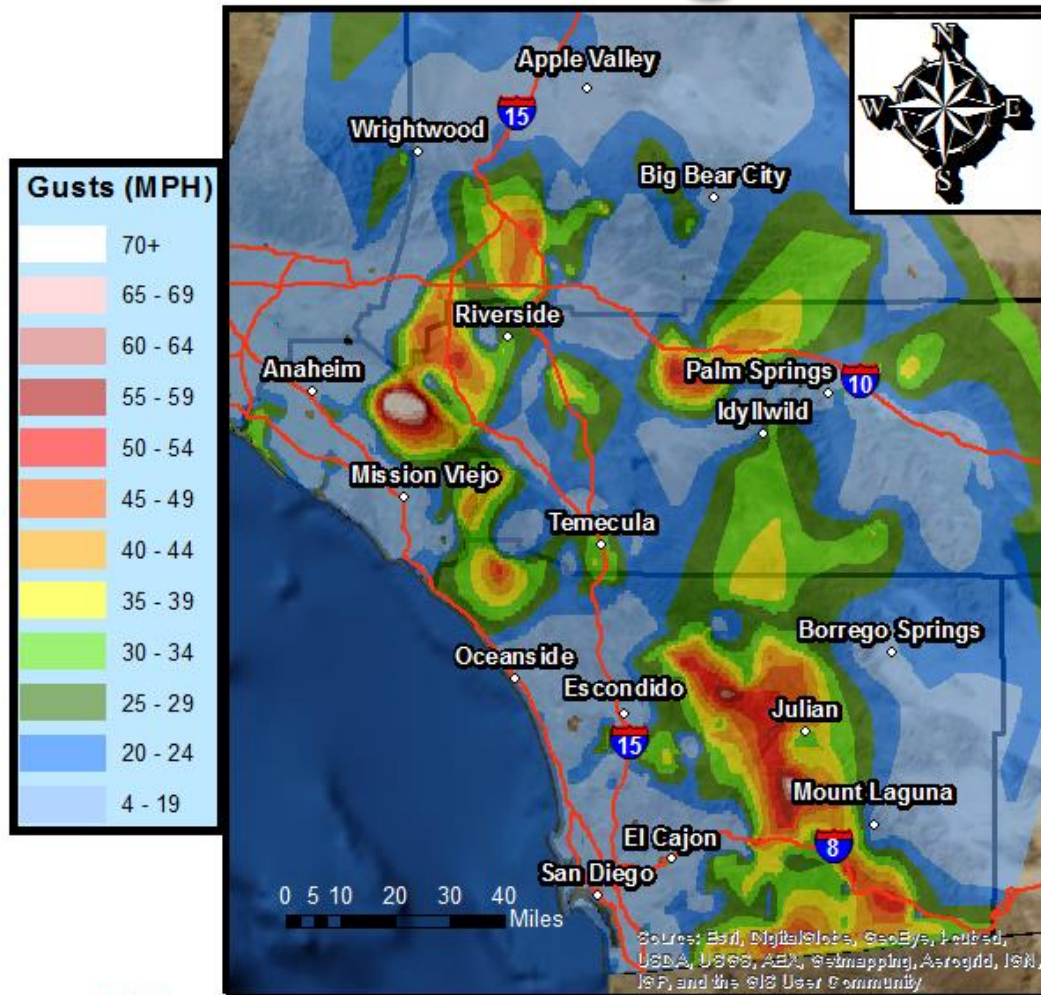


Fox5 news



December 9 to 10, 2013

Strong Santa Ana wind



HIGHEST GUSTS

STATION	ZONE	MPH
1. FREMONT CANYON	Orange County Cst	86
2. SILL HILL	SD County Mts	75
3. PLEASANTS PEAK	Santa Ana Mts	73
4. BIG BLACK MOUNTAIN	SD County Vlys	66
5. ALPINE	SD County Vlys	65
6. BUCKMAN SPRINGS	SD County Mts	59
7. INAJA PARK (SANTA YSABEL)	SD County Mts	58
8. HELLHOLE CANYON	SD County Vlys	57
9. DYE MOUNTAIN	SD County Vlys	57
10. 7 ENE ALPINE	SD County Mts	57
11. NORTH BOULDER CREEK	SD County Mts	57
12. BOULDER CREEK	SD County Mts	57
13. WEST SANTA YSABEL	SD County Mts	56
14. CRESTWOOD	SD County Mts	56
15. LA POSTA	SD County Mts	55

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Santa Ana Wind





December sunsets

